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[Continued on next page]

(57) Abstract: An I.V. flush syringe assembly includes a barrel having an inside surface defining a chamber for retaining fluid, an open proximal end and a distal end with a passageway therethrough in fluid communication with the chamber. An elongate plunger having a proximal end, a distal end and a flexible stopper is slidably positioned in fluid-tight engagement with the inside surface of the barrel for drawing fluid into and out of the chamber by movement of the stopper relative to the barrel. The barrel includes anti-reflux structure for holding said stopper in a partially deflected position after has been delivered from the chamber and the stopper is being force against the distal end of the chamber.



SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

— before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

Declaration under Rule 4.17:

— of inventorship (Rule 4.17(iv)) for US only

Published:

— with international search report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

INTERNATIONAL SEARCH REPORT

Internat Application No
PCT/US 03/29918

A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 A61M25/10 A61M5/315

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC 7 A61M

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 5 037 393 A (ELLGASS LOUIS P) 6 August 1991 (1991-08-06) column 4, line 53 - line 59 column 6, line 37 - line 41 column 7, line 3 - line 11 column 9, line 28 - line 31 figures 6,7	1,10
Y	---	2-6,11, 12
Y	US 4 820 272 A (PALMER MICHELE M) 11 April 1989 (1989-04-11) column 2, line 43 - line 44 column 2, line 58 - column 3, line 2 figures 1,2,4	2-6,11
A	---	1,13,14
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☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

* Special categories of cited documents :

- *A* document defining the general state of the art which is not considered to be of particular relevance
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- *O* document referring to an oral disclosure, use, exhibition or other means
- *P* document published prior to the international filing date but later than the priority date claimed

- *T* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- *X* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- *Y* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- *G* document member of the same patent family

Date of the actual completion of the international search

12 March 2004

Date of mailing of the international search report

19/03/2004

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INTERNATIONAL SEARCH REPORT

Internat I Application No
PCT/US 03/29918

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT		
Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 5 395 339 A (CROUSE ROGER L ET AL) 7 March 1995 (1995-03-07) column 13, line 54 - line 55 figure 15	12
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X	US 5 222 945 A (BASNIGHT ROBERT W) 29 June 1993 (1993-06-29) column 6, line 15 - line 34 figures 13,14	1
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	EP 1 106 194 A (EURO CHINA FARMA S L) 13 June 2001 (2001-06-13) column 3, line 20 - line 45 column 4, line 9 - line 14 figures 1-3	
A	-----	1
	US 4 832 693 A (GLOYER WALTER W) 23 May 1989 (1989-05-23) figures 3,4	
A	-----	1
	US 5 021 047 A (MOVERN JOHN B) 4 June 1991 (1991-06-04) figures	

INTERNATIONAL SEARCH REPORT

Int'l application No.
PCT/US 03/29918

Box I Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☒ Claims Nos.: 16, 17
because they relate to subject matter not required to be searched by this Authority, namely:
Rule 39.1(iv) PCT - Method for treatment of the human or animal body by surgery
2. ☐ Claims Nos.:
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

1. ☐ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☐ No protest accompanied the payment of additional search fees.

INTERNATIONAL SEARCH REPORT

information on patent family members

Intern: Application No

PCT/US 03/29918

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